In the Claims

1. (Previously Amended) A file allocation method for a hard disk drive comprising the steps of:

receiving a request to allocate hard disk space of a defined size for a buffer file;

allocating clusters for the buffer file from a plurality of clusters on the hard disk, wherein the clusters for the buffer file store media content instances; and

designating a portion of the clusters of the buffer file for at least one non-buffer file such that the non-buffer file is permitted to simultaneously share the portion of the clusters with the buffer file.

2. (Original) The method of claim 1, further comprising the step of maintaining a file sharing count for the clusters of the buffer file, such that the clusters with the file sharing count greater than one are removed from the buffer file.

3. (Original) The method of claim 1, further comprising the steps of removing from the buffer file the portion of the clusters that are shared by the buffer file and the non-buffer file and designating said previously shared portion as a portion of non-buffer file clusters.

4. (Original) The method of claim 3, wherein the non-buffer file clusters are used for permanent recordings.

5. (Original) The method of claim 3, further comprising the step of replacing the removed clusters with replacement clusters for the buffer file to maintain the defined size of the disk space for the buffer file as substantially constant.

6. (Original) The method of claim 5, wherein the step of replacing further includes the steps of finding the clusters on the hard disk that have a file sharing count equal to zero and incrementing the file sharing count of said clusters to one.

7. (Original) The method of claim 1, further comprising the step of using a first data structure comprising list entries for the buffer file and the non-buffer file, wherein the list entries include filenames, the clusters allocated for the buffer file and the non-buffer file, and starting sectors and ending sectors for the non-buffer file.

8. (Original) The method of claim 1, further comprising the step of using a second data structure comprising list entries for all of the clusters, wherein the list entries include the identities of each one of the clusters and the quantity of all of the hard disk files that share each one of the clusters.

9. (Original) The method of claim 1, further comprising the step of updating at least one file allocation table data structure at the request of an application.

10. (Original) The method of claim 1, further comprising the step of updating at least one file allocation table data structure based on pre-programmed timer events initiated by an application.

11. (Original) The method of claim 1, further comprising the step of writing the media content instances to the clusters of the buffer file and, for scheduled recordings, the clusters of the non-buffer file.

12. (Original) The method of claim 11, further comprising the step of tracking a current write and read location using a normal play time value.

13. (Original) The method of claim 11, further comprising the step of correlating sector and the cluster locations storing the media content instances with a normal play time value.

14. (Original) The method of claim 11, further comprising the step of receiving a write request from an application.

15. (Original) The method of claim 11, further comprising the step of returning to an application normal play time values corresponding to the media content instances locations, the buffer file and the non-buffer file locations on the disk space that the media content instances are written to, and a current write location upon receiving an update request from an application.

16. (Original) The method of claim 1, wherein the steps of allocating and designating further includes the step of allocating the clusters for a plurality of buffer files and designating portions of the clusters of the plurality of the buffer files for a plurality of non-buffer files.

17. (Original) The method of claim 1, wherein the non-buffer file is a permanently recorded file.

18. (Original) The method of claim 17, wherein the permanently recorded file can be deleted.

19. (Original) The method of claim 18, wherein the clusters of the deleted permanently recorded file are configured as writeable.

20. (Original) The method of claim 1, further comprising the step of receiving a request from an application to open the non-buffer file to permanently record at least one of the media content instances stored in the clusters of the buffer file.

21. (Original) The method of claim 20, further comprising the step of storing a starting and ending sector and cluster locations, for the media content instance to be designated as the permanent recording, in a file allocation table data structure.

22. (Original) The method of claim 20, further comprising the steps of calculating and returning to the application starting and ending normal play time values corresponding to the locations of the media content instance designated as the permanent recording.

23. (Previously Amended) A file allocation method for a hard disk drive comprising the steps of:

receiving a request to allocate hard disk space of a defined size for a buffer file;

allocating clusters for the buffer file from a plurality of clusters on the hard disk, wherein the clusters for the buffer file store media content instances;

designating a portion of the clusters of the buffer file for at least one non-buffer file such that the buffer file is permitted to simultaneously share the portion of the clusters with the non-buffer file;

using the non-buffer file clusters for permanent recordings;

maintaining a file sharing count for the clusters of the buffer file, such that the clusters with the file sharing count greater than one are removed from the buffer file;

removing from the buffer file the portion of the clusters that are shared by the buffer file and the non-buffer file and designating said previously shared portion as a portion of non-buffer file clusters; and

replacing the portion of the clusters that were removed from the buffer file with replacement clusters in order to maintain the defined size of the disk space for the buffer file as substantially constant.

24. (Previously Amended) A file allocation system for a hard disk drive comprising:

a memory with driver logic; and

a processor configured with the driver logic to receive a request to allocate hard disk space of a defined size for a buffer file, wherein the processor is further configured with the driver logic to allocate clusters for the buffer file from a plurality of clusters on the hard disk, wherein the clusters for the buffer file store media content instances, wherein the processor is further configured with the driver logic to designate a portion of the clusters of the buffer file for at least one non-buffer file such that the buffer file is permitted to simultaneously share the portion of the clusters with the non-buffer file, wherein the processor is further configured with the driver logic to use the non-buffer file clusters for permanent recordings, wherein the processor is further configured with the driver logic to maintain a file sharing count for the clusters of the buffer file, such that the clusters with the file sharing count greater than one are removed from the buffer file, wherein the processor is further configured with the driver logic to remove from the buffer file the portion of the clusters that are shared by the buffer file and the non-buffer file and designating said previously shared portion as a portion of non-buffer file clusters, wherein the processor is further configured with the driver logic to replace the portion of the clusters that were removed from the buffer file with replacement clusters in order to maintain the defined size of the disk space for the buffer file as substantially constant.

25. (Previously Amended) A file allocation system for a hard disk drive comprising:

a memory with driver logic; and

a processor configured with the driver logic to receive a request to allocate hard disk space of a defined size for a buffer file, wherein the processor is further configured with the driver logic to allocate clusters for the buffer file from a plurality of clusters on the hard disk, wherein the clusters for the buffer file store media content instances, wherein the processor is further configured with the

driver logic to designate a portion of the clusters of the buffer file for at least one non-buffer file such that the non-buffer file is permitted to simultaneously share the portion of the clusters of the buffer file with the buffer file.

26. (Original) The system of claim 25, wherein the processor is further configured with the driver logic to maintain a file sharing count for the clusters of the buffer file, such that the clusters with the file sharing count greater than one are removed from the buffer file.

27. (Original) The system of claim 25, wherein the processor is further configured with the driver logic to remove from the buffer file the portion of the clusters that are shared by the buffer file and the non-buffer file and designate said previously shared portion as a portion of non-buffer file clusters.

28. (Original) The system of claim 27, wherein the non-buffer file clusters are used for permanent recordings.

29. (Original) The system of claim 27, wherein the processor is further configured with the driver logic to replace the removed clusters with replacement clusters for the buffer file to maintain the defined size of the disk space for the buffer file as substantially constant.

30. (Original) The system of claim 29, wherein the processor is further configured with the driver logic to find the clusters on the hard disk that have the file sharing count equal to zero and increment the file sharing count of said clusters to one.

31. (Original) The system of claim 25, wherein the processor is further configured with the driver logic to use a first data structure comprising list entries for the buffer file and the non-buffer file, wherein the list entries include filenames, the clusters allocated for the buffer file and the non-buffer file, and starting sector and ending sectors for the non-buffer file.

32. (Original) The system of claim 25, wherein the processor is further configured with the driver logic to use a second data structure comprising list entries for all of the clusters, wherein the list entries include the identities of each one of the clusters and the quantity of all of the hard disk files that share each one of the clusters.

33. (Original) The system of claim 25, wherein the processor is further configured with the driver logic to update at least one file allocation table data structure at the request of an application.

34. (Original) The system of claim 25, wherein the processor is further configured with the driver logic to update at least one file allocation table data structure based on pre-programmed timer events initiated with an application.

35. (Original) The system of claim 25, wherein the processor is further configured with the driver logic to write the media content instances to the clusters of the buffer file, and for scheduled recordings, the clusters of the non-buffer file.

36. (Original) The system of claim 35, wherein the processor is further configured with the driver logic to track a current write and read location using a normal play time value.

37. (Original) The system of claim 35, wherein the processor is further configured with the driver logic to correlate sector and the cluster locations storing the media content instances with a normal play time value.

38. (Original) The system of claim 35, wherein the processor is further configured with the driver logic to receive a write request from an application.

39. (Original) The system of claim 35, wherein the processor is further configured with the driver logic to return to an application normal play time values corresponding to the media content instances locations, the buffer file and non-buffer file location on the disk space that the media content instances are written to, and a current write location upon receiving an update request from an application.

40. (Original) The system of claim 25, wherein the processor is further configured with the driver logic to allocate the clusters for a plurality of buffer files and designate portions of the clusters of the plurality of the buffer files for a plurality of non-buffer files.

41. (Original) The system of claim 40, wherein the non-buffer file is a permanently recorded file.

42. (Original) The system of claim 41, wherein the permanently recorded file can be deleted and the clusters of the deleted permanently recorded file are configured as writeable.

43. (Original) The system of claim 25, wherein the processor is further configured with the driver logic to receive a request from an application to open the non-buffer file to permanently record at least one of the media content instances stored in the clusters of the buffer file.

44. (Original) The system of claim 43, wherein the processor is further configured with the driver logic to store a starting and ending sector and cluster locations, for the media content instance to be designated as the permanent recording, in a file allocation table data structure.

45. (Original) The system of claim 43, wherein the processor is further configured with the driver logic to calculate and return to the application starting and ending normal play time values corresponding to the locations of the media content instance designated as the permanent recording.

Claims 46-56 (Cancelled).

57. (Original) The file allocation method of claim 1, further comprising limiting the buffer file to a substantially constant buffer file size, such that when the buffer file approaches a full status, the cluster storing the oldest media content is first deallocated from the buffer file and a new cluster is correspondingly allocated to the buffer file.

58. (Original) The file allocation method of claim 23, further comprising limiting the buffer file to a substantially constant buffer file size, such that when the buffer file approaches a full status, the cluster storing the oldest media content is first deallocated from the buffer file and a new cluster is correspondingly allocated to the buffer file.

59. (Original) The file allocation system of claim 24, wherein the processor is further configured to limit the buffer file to a substantially constant buffer file size, such that when the buffer file approaches a full status, the cluster storing the oldest media content is first deallocated from the buffer file and a new cluster is correspondingly allocated to the buffer file.

60. (Original) The file allocation system of claim 25, wherein the processor is further configured to limit the buffer file to a substantially constant buffer file size, such that when the buffer file approaches a full status, the cluster storing the oldest media content is first deallocated from the buffer file and a new cluster is correspondingly allocated to the buffer file.

Claim 61 (Cancelled).